CLAIMS

1. A method of preparing a surface of a molded, fiber reinforced polymer composite article for application of one or more paint layers to said surface when such article is to be subjected to a paint baking operation for at least one of said applied paint layers, said method comprising:

coating said surface of said fiber reinforced article with an overlying co-extensive layer of fiber-free, polymer resin filled with acid soluble filler particles;

dissolving acid soluble filler particles from the surface of said overlying layer to form micro-pores in said layer, said micro-pores being free of fibers of said fiber reinforced polymer composite article; and

forming at least one layer of a metal coating on said micro-pore containing, overlying layer as a barrier coating to out-gassing from said polymer composite article during said paint baking operation.

2. The process as recited in claim 1 in which said acid soluble filler particles are calcium carbonate particles.

3. The method as recited in claim 1 in which said fiber reinforced polymer composite article comprises a molding compound containing unsaturated polyester and polystyrene resins.

4. The method as recited in claim 1 in which said overlying layer comprises a molding compound containing unsaturated polyester and polystyrene resins.

5. The method as recited in claim 1 in which said polymer composite article is formed in a mold defining said surface and said overlying co-extensive layer of fiber-free, polymer resin filled with said

filler particles is applied to said surface while said article is in said mold.

6. The method as recited in claim 1 in which said metal barrier coating comprises a metal selected from the group consisting of aluminum, iron or zinc.

7. The method as recited in claim 1 in which said metal barrier coating is zinc or a zinc based alloy.

8. A method of preparing a surface of a fiber reinforced polymer composite article for application of one or more paint layers to said surface when such article is to be subjected to a paint baking operation for at least one of said applied paint layers, said method comprising:

forming fiber containing polymeric precursor materials in a mold to obtain said article, said mold comprising mold elements movable between open and closed positions;

coating said surface with an overlying co-extensive layer of fiber-free, polymer resin filled with calcium carbonate particles, said coating being performed while said article is in said mold;

dissolving calcium carbonate particles from the surface of said overlying layer to form micro-pores in said layer, said micro-pores being free of fibers of said fiber reinforced polymer composite; and

forming at least one layer of a metal coating on said micro-pore containing, overlying layer as a barrier coating to out-gassing from said polymer composite article during said paint baking operation

9. The method as recited in claim 8 in which said coating is performed while said mold elements are in their closed position.

10. The method as recited in claim 8 in which said coating is performed while said mold elements are in a position between their open and closed positions.

11. The method as recited in claim 8 in which said fiber reinforced polymer composite article comprises a molding compound containing unsaturated polyester and polystyrene resins.

12. The method as recited in claim 8 in which said overlying layer comprises a molding compound containing unsaturated polyester and polystyrene resins.

13. The method as recited in claim 8 in which said metal barrier coating comprises a metal selected from the group consisting of aluminum, iron or zinc.

14. The method as recited in claim 8 in which said metal barrier coating is zinc or a zinc based alloy.

15. The method as recited in claim 11 in which said overlying layer comprises a molding compound containing unsaturated polyester and polystyrene resins.